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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/370,373	08/10/1999	ERWIN HACKER	514413-3766	8023

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FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE- 10TH FL.  
NEW YORK, NY 10151

EXAMINER
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CLARDY, S

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 03/19/2004

22

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/370,373

Applicant(s)

HACKER ET AL.

Examiner

S. Mark Clardy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 16-40 is/are pending in the application.
- 4a) Of the above claim(s) 17,23,27,33 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 21,28,35 and 36 is/are allowed.
- 6) ☐ Claim(s) 16,18-20,22,24-26,29-32 and 37-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 18.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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Claims 16-40 are pending in this application.

Applicants' claims are drawn to compositions and methods of using herbicidal compositions comprising the synergistic combination of A + B herbicides (see exceptions in the claim 16 proviso):

A) a broad spectrum herbicide

- A1: glufosinate
- A2: glyphosate
- A3: imidazolinones
- A4: protoporphyrinogen oxidase (PPO) inhibitors;
- A5: cyclohexanedione oxime herbicides
- A6: heteroaryloxyphenoxypropionic acid herbicides

B) a second herbicide:

- B1 cyanazine, atrazine, terbutylazine, acetochlor, metolachlor, alachlor, terbutryn, benoxacor, nicosulfuron, rimsulfuron, primisulfuron, dimethenamid, fluthiamide, sulcotrione, simazine, mesotrione, pentoxamid
- B2 pendimethalin, pyridate, iodosulfuron, metosulam, isoxaflutole, metribuzin, cloransulam, flumetsulam, linuron, florasulam isoxachlortole
- B3 bromoxynil, dicamba, 2,4-D, clopyralid, prosulfuron, thifensulfuron, carfentrazone, tritosulfuron, MCPA, halosulfuron, diflufenzopyr, sulfo-sulfuron.

Again, in Paper No. 12, applicant elected with traverse of the species comprising:

A1.2 glufosinate-ammonium<sup>1</sup> and

B1.16 mesotrione<sup>2</sup>.

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<sup>1</sup> Ammonium 2-amino-4-(hydroxymethylphosphinyl)butanoate

<sup>2</sup> 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione

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Several claims had been held withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 14.5 (Preliminary Amendment). The requirement was made final in the previous office action. However, examination has been expanded to include claims comprising glufosinate in combination with any of the disclosed secondary herbicides in response to applicants' data demonstrating unexpected synergistic results for the elected species. Claims 17, 23, 27, 33, and 34 remain withdrawn as being drawn to non-elected species.

The rejection under 35 USC 112, first paragraph, is withdrawn in response to applicants' arguments.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 24-26 and 29-32 are rejected under 35 U.S.C. 102(a), (b), and (e) as being anticipated by Frisch et al (US 5,369,082).

Frisch et al teach the combination of glufosinate and simazine; see Tables 1 and 2. Inasmuch as these components are claimed herein to be synergistic, such an effect would appear to be inherent in their combination, regardless of whether a synergistic effect was recognized.

Claims 16, 18-20, 22, 24-26, 29-32 and 37-38 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Lee et al (US 6,586,367). Lee et al teach the synergistic combination of phospho-herbicides such as glufosinate (and the non-elected glyphosate) with additional herbicidal agents including prosulfuron, primisulfuron, dicamba, pyridate, dimethenamide, metolachlor, atrazine, clodinafop, terbutylazine, and simazine, among others (abstract), in maize crops (columns 1, 3, and 5).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 18-20, 22, 24-26, 29-32, and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (cited above). Lee et al teach the combination of glufosinate with herbicides within applicants' B classes. It would have been within the skill level of the ordinary artisan to select additional related herbicides to combine with glufosinate for the control

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of weeds in crops such as maize. Further, it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in the prior art. In re Kerkhoven, 205 USPQ 1069. One of ordinary skill in the art would have the requisite skill to select appropriate secondary herbicides based upon the known herbicidal spectrum of activity of the second herbicide to enhance the herbicidal utility of the combination.

In view of the synergistic results disclosed in Lee et al, it would appear that data demonstrating synergistic results for these glufosinate combinations would be expected.

Claims 21, 28, 35, 36, drawn to the elected species, are allowable over the cited prior art.


This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).'

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "S. Mark Clardy", with a stylized flourish at the end.

S. Mark Clardy  
Primary Examiner  
Art Unit 1616

March 15, 2004